

What is claimed is:

1. A die for impressing a material between said die and an anvil such as to apply a compressive force thereto, said die comprising:
 - a plurality of fields, each of said fields including at least two projections arranged to engage the material substantially simultaneously;
 - wherein said projections are structured and arranged such that a pressure on the material within each of the fields is not more than double the pressure applied to the material within any other one of said plurality of fields.
- 10 15 2. A die as defined in claim 1, wherein the pressure on the material within each of the fields is not more than 30% greater than the pressure on the material within any other one of said plurality of fields.
- 20 3. A die as defined in claim 1, wherein the pressure on the material within each of said plurality of fields is substantially equal.
- 25 4. A die as defined in claim 1, wherein the projections arranged within a selected one of said fields are structured and arranged to contact said material at substantially the same time and the projections arranged in different ones of said plurality of fields are structured and arranged to contact said material at different times.
- 30 5. A die as defined in claim 1, wherein said die is a rotary die.

6. A die as defined in claim 1, wherein at least one field of said plurality of fields includes a first zone of projections within an imaginary boundary and a second zone of projections external to said imaginary boundary, said imaginary boundary
5 corresponding to a peripheral edge of an article.

7. A die as defined in claim 6, wherein said first zone is continuous with said second zone.

10 8. A die as defined in claim 6, wherein said first zone is discontinuous and remote from said second zone.

9. A die as defined in claim 1, wherein said plurality of fields define a sealing pattern for impressing a material of a
15 sanitary absorbent article to form a peripheral seal extending at least partially around the sanitary absorbent article.

10. A die as defined in claim 9, wherein said sealing pattern includes a portion shaped as a main body of a sanitary napkin
20 and a portion shaped as a flap of a sanitary napkin.

11. A die as defined in claim 4, wherein said rotary die has an axis of rotation, each of said fields of projections extending generally parallel to said axis of rotation.
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12. A die as defined in claim 1, wherein a spacing between immediately adjacent projections in a first selected one of said fields of projections is different from a spacing between immediately adjacent projections in a second of said fields of
30 projections.

13. A die as defined in claim 1, wherein each of said projections has an individual contact area that contacts said material, and wherein a total contact area of a field is

defined by a summation of all of the contact areas of all the projections within said field.

14. A die as defined in claim 13, wherein the total contact
5 area within each of said fields is selected such that the pressure applied to the material within each of the fields is not more than double the pressure applied to the material within any other one of said plurality of fields.

10 15. A die as defined in claim 14, wherein a size of at least one of the projections in one of said plurality of fields is different than a size of at least one of the projections in another one of said plurality of fields.

15 16. A die as defined in claim 14, wherein a spacing between adjacent ones of said plurality of projections within a first one of said plurality of fields is different than a spacing between adjacent ones of said plurality of projections within a second one of said plurality of fields.

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17. A die as defined in claim 14, wherein a number of projections within a first one of said plurality of fields is different than a number of projections within a second one of said plurality of fields.

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18. A sanitary napkin manufactured by the die of claim 1.

19. A method of making a die for impressing a material at a plurality of discrete locations, the die comprising a plurality
30 of fields of projections, each field of projections having at least two projections arranged on said die to engage the material substantially simultaneously, the method comprising:

- defining a maximum pressure to be applied to the material by any one of said fields of projections;

- determining a minimum total contact area of projections within any one of said fields of projections through which the pressure is to be applied to the material based at least in part on the maximum pressure; and
- arranging the projections within the fields of said die based at least in part on said determination.

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20. A method of making a die as defined in claim 19, wherein
10 the projections of different fields are arranged to engage
the material at different times.

21. A method of making a die as defined in claim 19, further comprising:
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- defining a minimum pressure to be applied to the material by any one of said fields of projections;
- determining a maximum total contact area for any one of said fields of projections based at least in part on the minimum pressure; and

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- forming said fields of projections on said die such that the total contact area of projections of each of said fields of projections is less than or equal to said maximum total contact area.

25 22. A method of making a die as defined in claim 21, wherein said maximum pressure is defined as a pressure above which the material is punctured by said projections.

23. A method of making a die as defined in claim 21, wherein
30 said maximum pressure is defined as a pressure required to form a depression in the material of a predetermined minimum depth.

24. A method of making a die as defined in claim 21, wherein said minimum pressure is the pressure required to form a seal in the material having a predetermined minimum tensile strength.

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25. A method of impressing a material at a plurality of discrete locations in the manufacture of an article including the material, said method comprising:

- providing a die having a plurality of fields, each of said fields having at least two projections arranged to engage the material substantially simultaneously;
- applying in succession each of said plurality of fields of projections to the surface of the material such as to apply a compressive force thereto;
- said projections in each of said plurality of fields of projections defining a total contact area over which the compressive force is applied;
- the total contact area of the projections in each field being such that the pressure applied by each individual field on said die is not more than double the pressure applied by any other individual field on said die.

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26. A method as defined in claim 25, wherein the pressure applied by each individual field on said die exceeds at most by 60% the pressure applied by any other individual field on said die.

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A method as defined in claim 265, wherein the projections of different fields are arranged on the die to engage the material at different times.

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28. A method as defined in claim 25, wherein the die is a rotary die.

29. A method as defined in claim 25, wherein at least one field of said plurality of fields includes a first zone of projections within an imaginary boundary and a second zone of projections external to the imaginary boundary, the imaginary boundary corresponding to a peripheral edge of the article being manufactured.

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30. A method as defined in claim 29, wherein said first zone is continuous with said second zone.

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31. A method as defined in claim 29, wherein said first zone is discontinuous and remote from said second zone.

15 32. A method as defined in claim 25, wherein said fields define a sealing pattern for impressing the material of the article to form a peripheral seal extending at least partially around the article.

20 33. A method as defined in claim 32, wherein said sealing pattern includes a portion shaped as a main body of a sanitary napkin and a portion shaped as a flap of a sanitary napkin.

25 34. A method as defined in claim 28, wherein said rotary die has an axis of rotation, each of said fields of projections extending generally parallel to said axis of rotation.

30 35. A method as defined in claim 25, wherein a spacing between immediately adjacent projections in a first of said fields of projections is different from a spacing between immediately adjacent projections in a second of said fields of projections.

36. A method as defined in claim 25, wherein a first of said fields of projections has a plurality of projections each having a first individual contact area, and a second of said fields of projections has a plurality of projections each having a second individual contact area, said first individual contact area being different from said second individual contact area.

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10 37. A method as defined in claim 25, wherein the material includes a fluid-pervious layer and a liquid-impervious layer.

15 38. A method as defined in claim 37, wherein the impressing forms a seal joining the fluid-pervious layer and the liquid-impervious layer.